

28. (New) The method of claim 19, wherein no insulating layer is provided between either of the electrode layers and the light emission layer.

REMARKS

This is in response to the Office Action dated March 10, 2003. Claims 12-13 and 17 have been canceled; and new claims 19-28 have been added. Thus, claims 1-10, 14-16 and 18-28 are now pending. Attached hereto is a marked-up version of the changes made to the claim(s) by the current amendment. The attached page(s) is captioned "Version With Markings To Show Changes Made."

Claim 1

Claim 1 stands rejected under 35 U.S.C. Section 103(a) as being allegedly unpatentable over Tang in view of Rebeschi. This Section 103(a) rejection is respectfully traversed for at least the following reasons.

Claim 1 requires "driving said organic EL emission device in a manner such that said prescribed electric fields are substantially always different from each other in strength as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among said plurality of electrode pair regions." The cited art fails to disclose or suggest this aspect of claim 1, whether taken alone or in the alleged combination.

The Office Action admits that base reference Tang fails to disclose or suggest the aforesaid aspect of claim 1. Recognizing this fundamental flaw in Tang, the Office

Action cites Rebeschi. However, as will be explained below, Rebeschi also fails to disclose or suggest this aspect of claim 1.

As shown in the attachment hereto, Rebeschi applies the same -210 V to neighboring pixels during operation. In particular, in Figs. 6E-6F of Rebeschi, column lines 322-1 and 342-1 are neighboring column lines as shown in Fig. 3. Figs. 6E-6F of Rebeschi clearly illustrate that the same -210 V is applied to immediately neighboring pixels in adjacent columns during operation of Rebeschi's device. Since Rebeschi requires applying the same -210 V signal to neighboring pixels, the reference cannot possibly disclose or suggest the requirement of claim 1 that "said prescribed electric fields are substantially always different from each other in strength as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other." In fact, Rebeschi teaches directly away from this aspect of claim 1 by applying a signal (e.g., -210 V) of the same strength and same polarity to adjacent pixels.

Accordingly, it can be seen that even if Tang and Rebeschi were combined as alleged in the Office Action (which applicant believes would be incorrect in any event), the invention of claim 1 still would not be met.

#### Claim 10

Claim 10 requires that "said voltage application means applies said prescribed electric fields in a manner such that said prescribed electric fields are substantially always different from one another in polarity in adjacent electrode pair regions and vary in a time-dependent manner." Again, the cited art fails to disclose or suggest this aspect of claim 10, either taken alone or in the alleged combination.

As shown in the attachment hereto, Rebeschi applies the same  $-210\text{ V}$  to neighboring pixels during operation. Figs. 6E-6F of Rebeschi clearly illustrate that the same  $-210\text{ V}$  is applied to immediately neighboring pixels in adjacent columns during operation of Rebeschi's display device. Moreover, Figs. 5E-5F and 6E-6F of Rebeschi illustrate that the *same polarity is applied to all neighboring pixels belonging to the same row in Rebeschi*. Since Rebeschi requires applying the same polarity to all neighboring pixels in the same row, the reference cannot possibly disclose or suggest the requirement of claim 10 that the prescribed electric fields are substantially always different from each other in polarity in adjacent electrode pair regions. In fact, Rebeschi teaches directly away from this aspect of claim 10 by applying the same polarity to adjacent pixels.

Accordingly, it can be seen that even if Tang and Rebeschi were combined as alleged in the Office Action (which applicant believes would be incorrect in any event), the invention of claim 10 still would not be met.

#### Claim 14

Claim 14 requires "driving said organic EL emission device in a manner such that said prescribed electric fields at a given point in time are substantially always different from each other in polarity as applied to electrode pair regions adjacent to each other." Again, the cited art fails to disclose or suggest this aspect of claim 14, either alone or in the alleged combination.

#### Claim 19

Claim 19 requires "driving said organic EL emission device in a manner such that said prescribed electric fields at a given point in time are substantially always different

from each other in strength as applied to electrode pair regions adjacent to each other."

Again, the cited art fails to disclose or suggest this aspect of claim 19, either alone or in the alleged combination.

Claims 15-16 and 18

Claims 15-16 and 18 require that no insulating layer is provided between either of the electrode layers and the light emission layer. Rebesch teaches directly away from this by requiring insulating layer 213 between electrode layer 212 and EL material 214, and another insulating layer 215 between EL material 214 and electrode layer 216. Thus, even the alleged Section 103(a) combination fails to meet these claims as well.

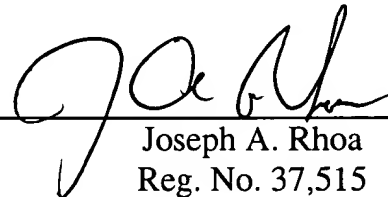
Conclusion

For at least the foregoing reasons, it is respectfully requested that all rejections be withdrawn. All claims are in condition for allowance. If any minor matter remains to be resolved, the Examiner is invited to telephone the undersigned with regard to the same.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_

  
Joseph A. Rhoa  
Reg. No. 37,515

JAR:caj  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS**

Please cancel claims 12-13 and 17.

1. (*Amended*) In an organic EL emission device comprising:

first and second electrode layers, at least one of which is transparent,

an organic light emission layer for EL emission sandwiched between said first and second electrode layers for together supplying prescribed electric fields to said organic light emission layer, said organic light emission layer being in direct contact with at least one of said electrode layers, wherein

at least said first electrode layer includes a plurality of electrodes arranged with spatial periodicity, and

said plurality of electrodes included in said first electrode layer together with adjacent regions in said second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity,

a method comprising driving said organic EL emission device in a manner such that said prescribed electric fields are substantially always different from each other in [at least either ]strength [or polarity ]as applied with variation in a time-dependent manner to electrode pair regions adjacent to each other among said plurality of electrode pair regions.

2. (*Amended*) The method of driving the organic EL emission device according to claim [1]14, wherein electric fields with at least [either ]different [strengths or ]polarity to be applied to electrode pair regions adjacent to each other among said plurality of electrode pair regions are varied with a constant time periodicity.

3. (*Unamended*) The method of driving the organic EL emission device according to claim 2, wherein alternating voltages with opposite polarities are applied to electrode pair regions adjacent to each other among said plurality of electrode pair regions.

4. (*Amended*) The method of driving the organic EL emission device according to claim [1]14, wherein at least said first electrode layer includes a plurality of electrodes in one of a dot-like form and a stripe-like form.

5. (*Unamended*) The method of driving the organic EL emission device according to claim 4, wherein said second electrode layer includes a plurality of stripe-like electrodes positioned in parallel to the plurality of stripe-like electrodes included in said first electrode layer.

6. (*Unamended*) The method of driving the organic EL emission device according to claim 4, wherein said second electrode layer includes a plurality of stripe-like electrodes arranged to intersect the plurality of stripe-like electrodes included in said first electrode layer.

7. (*Amended*) The method of driving the organic EL emission device according to claim [1]14, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said first electrode layer.

8. (*Unamended*) The method of driving the organic EL emission device according to claim 5, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said second electrode layer.

9. (*Unamended*) The method of driving the organic EL emission device according to claim 6, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said second electrode layer.

10. (*Amended*) An organic EL emission device, comprising:  
first and second electrode layers, at least one of which is transparent;

an organic light emission layer for EL emission sandwiched between said first and second electrode layers, said first and second electrode layers for supplying prescribed electric fields to said organic light emission layer, and wherein said organic light emission layer is in direct contact with said second electrode layer; and

voltage application means for applying a voltage between an electrode included in said first electrode layer and an electrode included in said second electrode layer, wherein

at least said first electrode layer includes a plurality of electrodes arranged with spatial periodicity,

said plurality of electrodes included in said first electrode layer together with adjacent regions in said second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, and

said voltage application means applies said prescribed electric fields in a manner such that said prescribed electric fields are substantially always different from one another in [at least either strength or ]polarity in adjacent electrode pair regions and vary in a time-dependent manner.

14. (*Unamended*) In an organic EL emission device comprising first and second electrode layers, at least one of which is transparent, an organic light emission layer for EL emission sandwiched between said first and second electrode layers for together supplying prescribed electric fields to said organic light emission layer, wherein at least said first electrode layer includes a plurality of electrodes arranged with spatial periodicity, and said plurality of electrodes included in said first electrode layer together



with adjacent regions in said second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, a method comprising:

driving said organic EL emission device in a manner such that said prescribed electric fields at a given point in time are substantially always different from each other in polarity as applied to electrode pair regions adjacent to each other.

15. (*Unamended*) The method of claim 1, wherein no insulating layer is provided between either of the electrode layers and the light emission layer.

16. (*Unamended*) The device of claim 10, wherein no insulating layer is provided between either of the electrode layers and the light emission layer.

18. (*Unamended*) The method of claim 14, wherein no insulating layer is provided between either of the electrode layers and the light emission layer.

Please add the following new claims:

19. (*New*) In an organic EL emission device comprising first and second electrode layers, at least one of which is transparent, an organic light emission layer for EL emission sandwiched between said first and second electrode layers for together supplying prescribed electric fields to said organic light emission layer, wherein at least

said first electrode layer includes a plurality of electrodes arranged with spatial periodicity, and said plurality of electrodes included in said first electrode layer together with adjacent regions in said second electrode layer including at least one electrode form a plurality of electrode pair regions arranged with spatial periodicity, a method comprising:

driving said organic EL emission device in a manner such that said prescribed electric fields at a given point in time are substantially always different from each other in strength as applied to electrode pair regions adjacent to each other.

20. (*New*) The method of driving the organic EL emission device according to claim 19, wherein electric fields with at least different strengths to be applied to electrode pair regions adjacent to each other among said plurality of electrode pair regions are varied with a constant time periodicity.

21. (*New*) The method of driving the organic EL emission device according to claim 20, wherein alternating voltages with opposite polarities are applied to electrode pair regions adjacent to each other among said plurality of electrode pair regions.

22. (*New*) The method of driving the organic EL emission device according to claim 19, wherein at least said first electrode layer includes a plurality of electrodes in one of a dot-like form and a stripe-like form.

23. (New) The method of driving the organic EL emission device according to claim 22, wherein said second electrode layer includes a plurality of stripe-like electrodes positioned in parallel to the plurality of stripe-like electrodes included in said first electrode layer.

24. (New) The method of driving the organic EL emission device according to claim 22, wherein said second electrode layer includes a plurality of stripe-like electrodes arranged to intersect the plurality of stripe-like electrodes included in said first electrode layer.

25. (New) The method of driving the organic EL emission device according to claim 19, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said first electrode layer.

26. (New) The method of driving the organic EL emission device according to claim 23, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said second electrode layer.

27. (*New*) The method of driving the organic EL emission device according to claim 24, wherein a first group of electrodes including every other electrode are electrically connected to each other, and a second group of electrodes that remain besides said first group of electrodes are electrically connected to each other in said second electrode layer.

28. (*New*) The method of claim 19, wherein no insulating layer is provided between either of the electrode layers and the light emission layer.